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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,759	08/08/2006	Marco Ortalda	294467US0PCT	2938
22850	7590	10/20/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER NEGRELLI, KARA B	
			ART UNIT 4131	PAPER NUMBER
			NOTIFICATION DATE 10/20/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/588,759	<b>Applicant(s)</b> ORTALDA, MARCO	
	<b>Examiner</b> KARA NEGRELLI	<b>Art Unit</b> 4131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/04/2006</u> .  | 6) <input type="checkbox"/> Other: _____                          |

**TIN AND TRANSITION METAL FREE POLYURETHANE FOAMS**

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 6, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clatty (US 2003/0166735) and further in view of Doesburg et al (US 5,159,012). Clatty teaches a rigid, close-celled polyurethane foam produced by reacting an isocyanate group (paragraph [0043]), an isocyanate-reactive compound (paragraph [0043]), and a bismuth catalyst (paragraph [0053]), said foams of which have a densities of 8 to 55 lbs/ft<sup>3</sup> (paragraph [0075]), and said catalyst of which is present in an amount from about 0.01 to about 7%, based on total weight of isocyanate-reactive component, preferably said catalyst in the amount from 0.5 to 6%, and even more preferably said catalyst of which is present in the amount of 1 to 5% (paragraph [0055]). Clatty fails to teach the use of said rigid foam in a shoe sole. However, Doesburg et al teach a polyurethane elastomer made from a polyol and an isocyanate with a bismuth catalyst (US 5,159,012, column 2, lines 6-9), said elastomer of which is useful in shoe soles (US 5,159,012, column 1 lines 67 through column 2 line 2). It would be obvious for one of ordinary skill in the art to use the polyurethane foam as applied to claim 1 for

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use in a shoe sole because polyurethane elastomers make useful backing materials for commercial products, including shoe soles (US 5,159,012, column 2, lines 1-2).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clatty (US 2003/0166735) and in view of Doesburg et al (US 5,159,012), as applied to claim 1 above, and further in view of Londrigan et al (US 5,405,884). Clatty teaches the rigid, close-celled polyurethane foam as applied to claim 1 above. Doesburg et al teach the use of a polyurethane foam in shoe soles as applied to claim 1 above. Clatty and Doesburg et al fail to teach the production of a polyurethane foam comprising a reaction which includes carboxylates and amines in a ratio of 0.005:1 to 0.5:1. However, Londrigan et al (US 5,405,884) teach a rigid polyisocyanurate foam made from a reaction comprising a polyisocyanate and a polyol, in the presence of a catalyst and blowing agent (column 2, line 65- column 3, line 2), said catalyst comprises an organic acid metal salt and a tertiary amine in a ratio of less than 3:1 (column 5, lines 44-47). It would have been obvious for one of ordinary skill in the art at the time the invention was made to use a catalyst comprising an organic metal salt and tertiary amine in a ratio of less than 3:1 in a polyurethane foam because using this molar ratio optimizes the mechanical properties of said foam (Londrigan et al (US 5,405,884), column 5, lines 35-37).

Claims 4 and 9 are rejected under 103(a) as being unpatentable over Clatty (US 2003/0166735) and in view of Doesburg et al (US 5,159,012) as applied to claim 1 above and further in view of Volkert et al (US 6,331,577 B1). Clatty teaches the rigid polyurethane foam as applied to claim 1 above, but fails to teach the use of the rigid

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foam in shoe soles and said shoe sole of which is integral polyurethane foam.

Doesburg et al teach a polyurethane elastomer for use in shoe soles as applied to claim 1 above. Clatty and Doesburg et al fail to teach said polyurethane foam of which is integral polyurethane foam. However, Volkert et al (6,331,577 B1) teach flexible integral polyurethane foams for use in shoe soles (column 1, lines 6-11). It would be obvious for one of ordinary skill in the art to use the polyurethane foam as applied to claim 1 for use in a shoe sole, said polyurethane foam of which is an integral polyurethane foam because integral polyurethane foams have very good mechanical properties, including high elasticity (column 2, lines 25-28).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clatty (US 2003/0166735) and in view of Doesburg et al (US 5,159,012). Clatty teaches the rigid polyurethane foam as applied to claim 1 above, and further teaches the use of bismuth neodecanoate, bismuth versalate, and various bismuth carboxylates known in the art (paragraph [0053]). Clatty fails to teach the use of said rigid foam in a shoe sole. However, Doesburg et al teach a polyurethane elastomer made from a polyol and an isocyanate with a bismuth catalyst (US 5,159,012, column 2, lines 6-9), said elastomer of which is useful in shoe soles (US 5,159,012, column 1 lines 67 through column 2 line 2). It would be obvious for one of ordinary skill in the art to use the polyurethane foam as applied to claim 1 for use in a shoe sole because polyurethane elastomers make useful backing materials for commercial products, including shoe soles (US 5,159,012, column 2, lines 1-2).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KARA NEGRELLI whose telephone number is (571)270-7338. The examiner can normally be reached on Monday through Friday 7:30 am EST to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571)272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R. Sample/  
Supervisory Patent Examiner  
Art Unit 4131

/KARA NEGRELLI/  
Examiner, Art Unit 4131